

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER NO. 90-087

UPDATED WATER RECLAMATION REQUIREMENTS FOR:

NORTH SAN MATEO COUNTY SANITATION DISTRICT, OLYMPIC GOLF CLUB, SAN FRANCISCO GOLF AND COUNTRY CLUB, LAKE MERCED GOLF AND COUNTRY CLUB, CYPRESS HILLS LAND COMPANY, INC., WOODLAWN MEMORIAL PARK, OLIVET MEMORIAL PARK, CYPRESS ABBEY CO., CYPRESS LAWN CEMETERY ASSOCIATION, HOLY CROSS CEMETERY, AND CALTRANS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board, finds that:

1. The North San Mateo County Sanitation District (hereinafter Producer) submitted a proposal in 1977 entitled "Wastewater Treatment and Reclamation Project." It proposed using wastewater for landscape irrigation at golf courses, cemeteries, parks, schools, and other miscellaneous non-residential sites (See Attachment A). The proposal identified a potential market for an average of 4.5 million gallons per day (mgd) and a summertime average of 7.6 mgd.
2. The above-named parties, including Caltrans and several golf courses and cemeteries, are designated hereinafter as Users. The Producer and users are designated hereinafter as the Discharger.
3. On August 15, 1978, the Board adopted Order No. 78-71 prescribing water reclamation requirements for irrigation usage.
4. The Producer installed underground pipes to connect its plant to the San Francisco Golf and Country Club (hereinafter S.F.G. & C.C.) and the Olympic Golf Club in 1978. However, reclaimed water was not used because (1) the Producer could not reliably meet the reclaimed water specifications as prescribed in Order No. 78-71 and (2) there was less interest in reclaimed water after the 1977-78 drought ended.
5. Since that time, the Producer's sewage treatment plant has undergone improvements. In late 1989, two additional primary clarifiers, four equalization basins, and another chlorine contact chamber were completed and put into operation. These improvements significantly increase the Producer's ability to reliably meet the reclaimed water specifications in Order No. 78-71.

6. The Producer and S.F.G. & C.C. have agreed to a reclamation pilot project located at S.F.G.C. & C.C.'s seventh fairway.
7. If this pilot project is successful, reclamation projects will be extended to other sites. Also, Caltrans expresses interest in using reclaimed water from the Producer to irrigate vegetation along Interstate 280 within the city limits of Daly City. Initially, Caltrans will fill trucks at the sewage treatment plant. Eventually, however, a pipe may be installed to bring the reclaimed water directly to Interstate 280. The following are potential users:

Property	User	Acreage
Olympic Golf Course	The Olympic Club	265
San Francisco Golf Course	The San Francisco Golf and Country Club	150
Lake Merced Golf Course	Lake Merced Golf and Country Club	121
Cypress Hills Golf Course	Cypress Hills Land Company, Inc.	80
Woodlawn Memorial Park	Woodlawn Memorial Park	49
Olivet Memorial Park	Olivet Memorial Park	63
Greenlawn Memorial Park	Cypress Abbey Co.	57
Cypress Lawn Memorial Park	Cypress Lawn Cemetery Association	111
Holy Cross Cemetery	Holy Cross Cemetery	133
Caltrans	Caltrans	80
	Total	1109

8. The Producer will be responsible for reclaimed water quality and for operation and maintenance of any major transport facilities and associated appurtenances. Users will be responsible for the application of wastewater on their respective use areas and the operation and maintenance associated.
9. California Water Code Section 13512 declares that it is the intention of the Legislature that the State undertake all possible steps to encourage the development of water reclamation facilities so that reclaimed water may be made available to help meet the growing water demands of the State
10. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan acknowledges the importance of using reclaimed water to meet future water needs.
11. Section 13523 of the California Water Code directs the Regional Board to prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water if necessary to protect public health safety and welfare.

12. Since the discharges propose to use reclaimed water on areas where there is potential human contact, water reclamation requirements are necessary for the proposed reclamation activities in order to protect public health safety and welfare.
13. These water reclamation requirements conform with wastewater reclamation criteria established by the State Department of Health Services as prescribed in 22 CCR 60301 et. seq.
14. The limitations and provisions of this Order mitigate or prevent the water quality and public health related impacts of this project.
15. Adoption of water reclamation requirements is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to 14 CCR Section 15307 (CEQA Guidelines).
16. The dischargers and interested parties have been notified of the Board's intent to update requirements for the discharge and have been provided with the opportunity to submit their comments.
17. The Board, at a public meeting, heard and considered all comments pertaining to this proposed use of reclaimed water.

IT IS HEREBY ORDERED that the dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, shall comply with following:

A. Prohibitions

1. The treatment, distribution, or use of reclaimed wastewater shall not create a nuisance as defined in Section 13050 (m) of the California Water Code.
2. No reclaimed water shall be allowed to escape from the designated use area via surface flow or airborne spray.
3. Reclaimed water shall not be used as a domestic or animal water supply. There shall be no cross-connection between the potable water supply and the pipe(s) containing reclaimed water. Supplementing reclaimed water with water used for domestic supply shall not be allowed except through an air-gap separation. An air-gap or reduced pressure principle device shall be provided at all domestic water service connections to reclaimed water use areas.

4. The use of reclaimed water shall not cause the degradation of groundwater used for domestic purposes or cause any change in a quality parameter which would make the groundwater less suitable for irrigation usage.

B. Reclaimed Wastewater Quality Specifications

1. The Producer shall assure that reclaimed wastewater is at all times an adequately oxidized and disinfected wastewater that meets the following quality limits prior to application:

5-day BOD	40.0 mg/l maximum
Dissolved Oxygen	1.0 mg/l, minimum
Dissolved Sulfide	0.1 mg/l, maximum

Coliform Organisms Median number of total coliform organisms shall not exceed 23 MPN/100 ml at some point in the treatment process. The median value will be determined from the bacteriological results of the last seven analyses. The number of total coliform organisms shall not exceed 240 MPN/100 ml in any two consecutive samples.

C. Reclaimed Wastewater Use Limitations

1. Use of reclaimed wastewater shall be limited to irrigation of the areas specified in Finding 7 of this Order.
2. No reclaimed wastewater shall be applied to use areas during periods of rainfall or when soils are saturated.
3. No reclaimed wastewater shall be applied to use areas in such manner or at such times as to expose golfers or any other individuals to contact with spray droplets.
4. Areas irrigated with reclaimed wastewater shall be clearly identified with posted notices to the public.
5. Employees of the Users should be aware of the potential health hazards involved with contact or ingestion of reclaimed wastewater. California State Health Department's Guidelines for worker protection at reclaimed wastewater use areas should be followed.
6. All equipment, including pumps, piping, storage reservoirs and valves, etc., which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs, and the Producer and Users shall make all necessary

provisions, in addition, to inform the public that the liquid contained therein is reclaimed wastewater and is unfit for human consumption.

7. The discharge of reclaimed wastewater to a use area shall cease immediately upon indication that the reclaimed wastewater does not comply with any quality specification.

D. Provisions

1. The Discharge shall notify the Executive Officer, by phone, 30 days prior to initiating reclamation at any of the sites shown in Attachment A.
2. The Discharger shall comply with the Self-Monitoring Program (Attachment B), which may be revised by the Executive Officer. Users are responsible for submitting on-site observation reports to Producer, who will compile and file self-monitoring reports with the Regional Board.
3. The Discharger and Users shall permit the Regional Board or its authorized representative:
 - a. Entry upon premises in which an effluent source is located or in which any required records are kept.
 - b. Access to copy any records required to be kept under terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or method required by this Order.
 - d. Sampling of any discharge.
4. The Discharger shall maintain in good working order and operate as efficiently as possible all facilities to achieve compliance with the water reclamation requirements.
6. The Discharger shall notify the Regional Board, in writing, at least 180 days before making any material change or proposed change in the character, location or maximum volume of water reclamation.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Board, San Francisco Bay Region, on June 20, 1990.

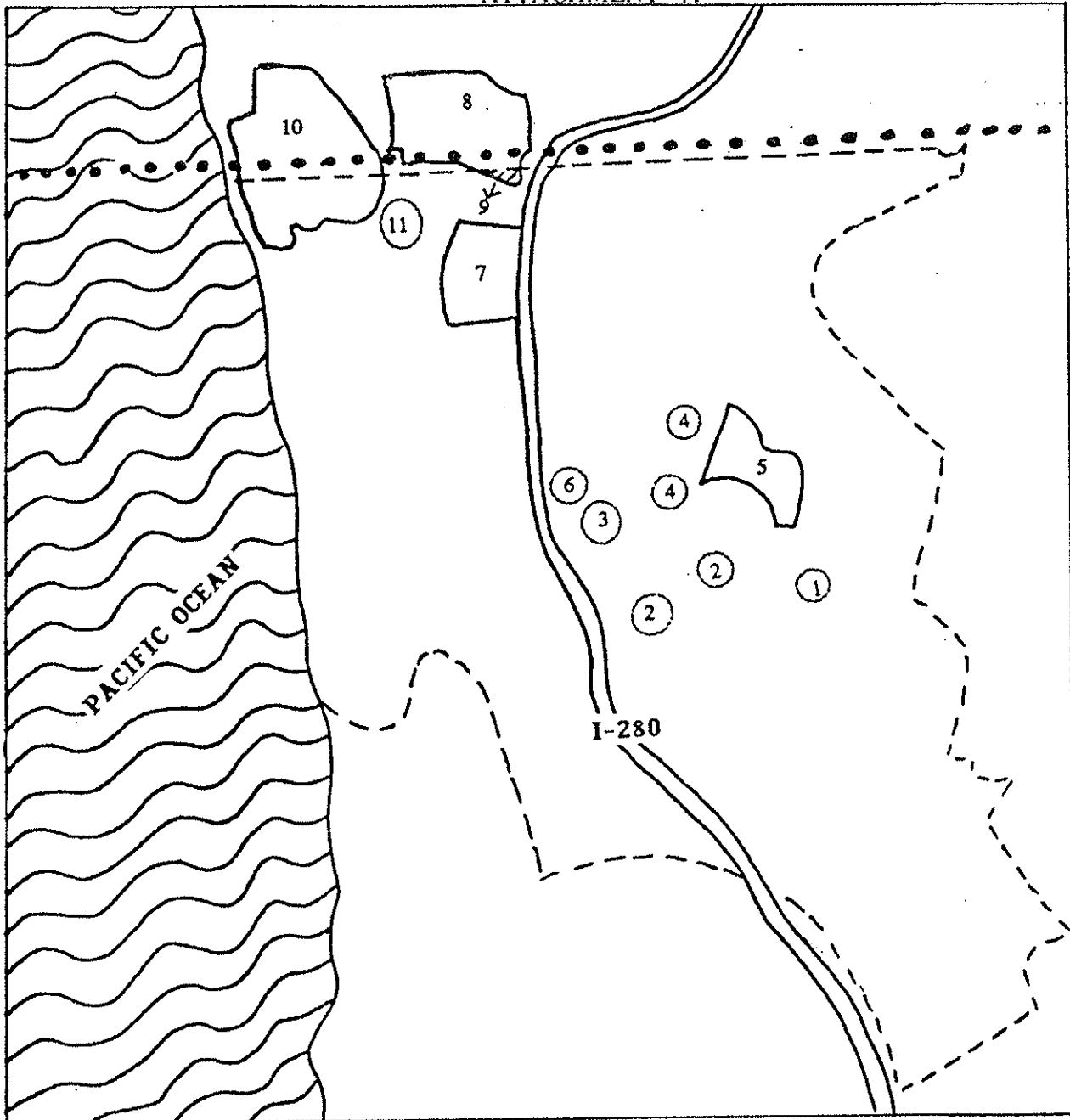


Steven R. Ritchie
Executive Officer

Attachments:

- A. Map
- B. Self-Monitoring Program

File No. 2179.7102 (ST)



LEGEND

- SHORELINE
- STUDY AREA
- SAN FRANCISCO COUNTY/SAN MATEO COUNTY LINE
- == CALTRANS

- | | |
|------------------------------|---------------------------|
| 1 HOLY CROSS CEMETERY | 6 WOODLAWN MEMORIAL PARK |
| 2 CYPRESS LAWN MEMORIAL PARK | 7 LAKE MERCED GOLF COURSE |
| 3 GREENLAWN MEMORIAL PARK | 8 S.F.G. & C.C. |
| 4 OLIVET MEMORIAL PARK | 9 PILOT AREA |
| 5 CYPRESS HILLS GOLF COURSE | 10 OLYMPIC GOLF COURSE |

11 PRODUCER

ATTACHMENT B

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

SELF-MONITORING PROGRAM

FOR

NORTH SAN MATEO COUNTY SANITATION
DISTRICT, THE OLYMPIC CLUB, THE SAN
FRANCISCO GOLF AND COUNTRY CLUB,
LAKE MERCED GOLF AND COUNTRY CLUB,
CYPRESS HILLS LAND COMPANY, INC.,
WOODLAWN MEMORIAL PARK, OLIVET
MEMORIAL PARK, CYPRESS ABBEY CO.,
CYPRESS LAWN CEMETERY ASSOCIATION,
HOLY CROSS CEMETERY, AND CALTRANS

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A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13255(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are:

- (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board,
- (2) to facilitate self-policing of the waste discharge,
- (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards, and
- (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the 40 CFR Part 136 or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DOHS) or a laboratory waived from obtaining a certification for these analyses by the DOHS. The director of the laboratory whose name appears on the certification or his/her laboratory supervisor who is directly responsible for analytical work performed shall supervise all analytical work including appropriate quality assurance/quality control procedures in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. MONITORING PROGRAM

1. Schedule for sampling, and analyses of effluent shall be performed as shown Table I.

2. A grab sample is defined as an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal operation conditions for the parameter of interest, which may or may not during hydraulic peaks. It is used primarily in determining compliance with daily maximum limits and instantaneous maximum limits. Grab samples represent only the condition that exists at the time the wastewater is collected.
3. Each User of reclaimed wastewater shall, during periods when reclaimed wastewater is used, inspect the use area weekly for the following;
 - (a) Evidence of reclaimed water escaping the irrigation site through surface runoff or airborne spray. (Show affected area on a sketch.)
 - (b) Presence or absence, characterization, source, and distance of travel of odors.
 - (c) Evidence of prolonged ponding of reclaimed water in the irrigation site as a result of excessive spray.
 - (d) Adequate posting of warning signs or notices to inform public of the use of reclaimed water for irrigation.
 - (e) Maintenance of the required buffer distance from areas to be protected.
 - (f) Evidence of direct spraying of reclaimed water on streams, passing vehicle, buildings, domestic water facilities, or food handling facilities.

D. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violation of Requirements:

In the event the Discharger is unable to comply with the conditions of the water reclamation requirements and prohibitions due to:

- (a) maintenance work, power failure, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the Discharger shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent

information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problems from recurring.

2. Self-Monitoring Reports

Written reports shall be prepared for each month in which reclamation occurs, and shall be received by the Regional Board by the fifteenth day of the month. The reports shall be comprised of the following:

(a) Letter of transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as operation modifications and/or facilities expansion. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty or perjury, that to the best of the signer's knowledge the report is true and correct.

(b) Results of Analyses and Observation

Tabulations of the results from each required analysis and/or observations specified in Table I by date, time, type of sample, and station.

(c) List of Approved Analyses

- (1) Listing of analyses for which the Discharger is approved by the State Department of Health.
- (2) List of analyses performed for the Discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 90-087.

2. Has been ordered by the Executive Officer on June 20, 1990, and becomes effective on the date reclamation commences.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE
Executive Officer

Attachment:
Table I

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES
NORTH SAN MATEO COUNTY SANITATION DISTRICT RECLAMATION PROJECT

SAMPLING STATION	E-001	USE AREAS			
TYPE OF SAMPLES	G ¹ /				
RECLAIMED WASTEWATER VOLUME (gallons/day) ²	D				
TOTAL COLIFORM (MPN/L)	D				
DISSOLVED SULFIDE (MPN/L)	D				
BOD (MG/L)	D				
DISSOLVED OXYGEN (MPN/L)	D				
CHLORINE RESIDUAL (MG/L)	D				
WEEKLY OBSERVATIONS BY USERS		O ³			

LEGEND

Type of Sample

G = grab sample
O = observation

Frequency of Sampling

D = once each day

Station

E-001 = station(s) where a representative sample of treatment plant effluent being diverted for reclamation can be obtained and total diverted flow can be measured.

1/Samples are required to be taken only at times when reclaimed wastewater is being diverted.

2/Reclaimed wastewater volume shall be listed for the amounts used by each user.

3/Observations are required only when reclaimed water is being used. Each user of reclaimed water should inspect the use area weekly for the parameters listed in C.3.